

AMENDMENTS TO THE SPECIFICATION

Please replace paragraphs [0027] through [0030] with the following paragraphs:

[0027] For a more detailed explanation of the invention, exemplary embodiments are described in more detail below with reference to the drawings in which:

[0028] FIG. 1 shows a perspective view of a first embodiment of a pumping apparatus according to the invention which is illustrated, partially cut away, for clarity,

[0029] FIG. 2 shows a cross-sectional view of the embodiment of the pumping apparatus according to FIG. 1,

FIG. 2A is a plan view of the cam segments from the shaft illustrated in Figure 2 joined to one another in an offset manner,

FIG. 2B is an end view of the shaft from Figure 2A and illustrates a continuous core region which is integral to the shaft,

FIG. 2C is a cross-sectional view of the shaft illustrated in Figure 2B taken along lines 2C-2C and illustrates the continuous core region,

FIG. 2D is a perspective view of the cam segments from the shaft illustrated in Figure 2 joined to one another in an offset manner,

FIG. 2E is a cross-sectional view of the shaft illustrated in Figure 2D and illustrates the continuous core region which is integral to the shaft,

[0030] FIG. 3 shows a perspective view of a second embodiment of a pumping apparatus according to the invention, with the detail of the shaft, lamellae, a hose and a counterpressure plate,

Please replace paragraph [0052] with the following replacement paragraph:

[0052] FIG. 8 shows a section through the first lamella, as seen from the drive side, FIGS. 6 and 7 showing a drive unit rotated through 180°, as compared with FIGS. 3 and 4. It may in this case be gathered from FIG. 7, in the region of the eighth cam segments segment from the right, that a very small core region 22 is provided in the case of this shaft 10. The core region is indicated in this region only, so as not to impair the clarity of the rest of the illustration.

Please replace paragraph [0044] with the following replacement paragraph:

[0044] The shaft illustrated in FIGS. 1, ~~and 2,~~ and 2A-2E, is without a core shaft, that is to say no continuous core shaft is provided, to which the cam discs are attached, but, instead, a shaft constructed in one piece from cam segments. Since a core shaft is omitted, any desired offset between the individual cam segments may be provided. In particular, the cam segments may be provided so far outside an imaginary center line 21 of the shaft 10 that with the provision of a core shaft, as is disclosed in the prior art, such a cam segment could even no longer be attached to the shaft (see FIGS. 15 and 16). An increase in the stroke h , as compared with a prior art, is thereby possible. At the same time, the lamellae may also have smaller dimensions, and, in particular, a smaller height c . The ratio between the lamella height and the lamella stroke is about 4:1 or better, in particular about 3.5:1, about 3:1, about 2.5:1, about 2:1, about 1.5:1, about 1:1 or less or, if appropriate, even somewhat more than 4:1. The ratios which lie between the ratios specified are also possible. In the prior art, only ratios between lamella height and lamella stroke in the case of guided shafts, in which the lamellae are drawn back by the shaft away from the hose to be compressed, of 7.5:1 or 8:1 and poorer are possible.

Please replace paragraph [0058] with the following paragraph:

[0058] FIGS. 13 to 16 show various basic diagrams of shafts viewed from one cross-sectional side. In FIG. 13, the illustrated embodiment includes an internal continuous core region 22 (illustrated in Figures 2 and 2A-2E ~~and 7~~), and the cam segments 13 of the shaft 10 are offset with respect to one another by the amount of an angle α of 40° in each case. A relatively large contact surface 32 for increasing the stability of the shaft is thereby provided between the individual cam segments. Such a contact surface 32 is illustrated by broken lines in each of FIGS. 13 to 16.